R.E.U. Students Investigate the Nano World

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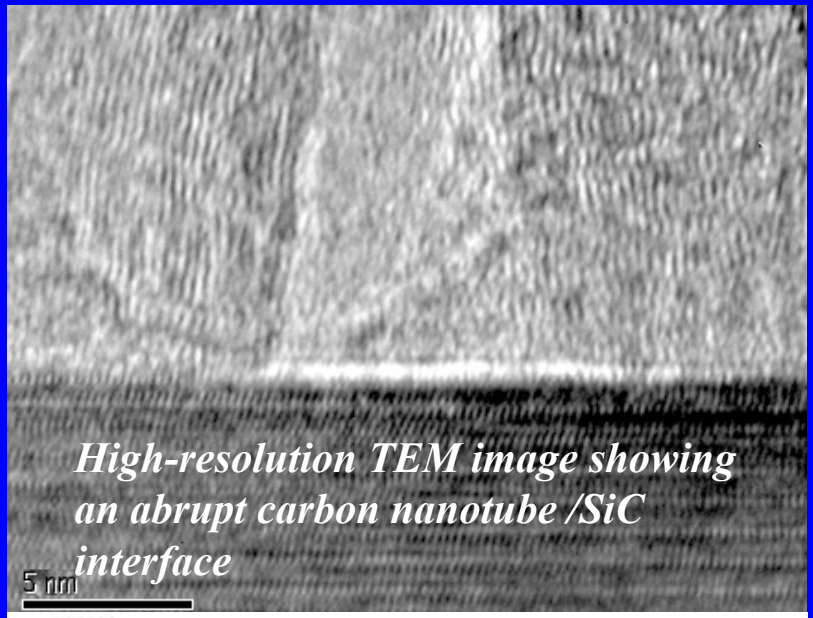
Nanorods, and carbon nanotubes have attracted much attention due to potential applications in electronic and optoelectronic devices. The study of the physical and chemical properties of these nano-components will allow for development of useful devices. Research by REU students included development of non-catalystic growth techniques for carbon nanotubes , nanorod fabrication for photocell development, crystal growth, and glass fabrication for laser applications. Students used various techniques for analysis of data to include 1) Xray Photo-electron Spectroscopy, 2)Scanning Electron spectroscopy, 3)Atomic Force Microscopy, 4)UV-Vis Spectroscopy, Raman Spectroscopy, and 5)Fourier Infrared Spectroscopy.



High-resolution TEM image showing an abrupt carbon nanotube /SiC interface